

DETAILED ACTION

This application is a 371 (national stage application) of PCT/FR03/01153, which claims priority from FR02/04860.

Claims 25-48 are pending.

Election/Restrictions

1. Applicant's election of Group I, claims 25-47, in the reply filed on May 19, 2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claim 48 is withdrawn as belonging to a non-elected invention. This restriction requirement is deemed proper and is, therefore, made final.

Applicant's election of acrylic acid for hydrophilic copolymer species, butyl acrylate for hydrophobic copolymer species, and ethoxylated fatty alcohol for the surfactant species is acknowledged. Examiner asserts that these species read on claims 25-28, 31-38, and 40-47, and said claims are pending for examination. Claims 29, 30, and 39 are withdrawn as containing a non-elected species.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2)

requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Objections

4. Claim 43 is objected to because of the following informalities: The claim recites "the neutralizing agent is a compounds..." The -s on compounds should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 25-28, 31-38, and 40-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 provides for the preparation of a direct emulsion, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. Claims 26-28, 30-38, and 40-47 ultimately depend from claim 25 and possess all limitations embodied within that claim. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. As such these claims will be treated as product claims.

Additionally, claims 42 and 44 contain material offset by parentheses. Is this material to be considered a limitation of the claim? If so, it would be remedial to amend the claims. Examiner suggests the following wording:

42. The process as claimed in claim 25, wherein the cosurfactant with respect to the surfactant is present in a cosurfactant/surfactant proportion of up to 50% by weight.

44. The process as claimed in claim 25, wherein the neutralizing agent with respect to the surfactant is present in a neutralizing agent/surfactant proportion of up to 50% by weight.

Alternatively, these limitations in claims 42 and 44 could be incorporated into claims 41 and 43, respectively, with a minimum of effort.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 25-28, 33, 34, 36-38, 41, 43, 44, 46, & 47 are rejected under 35

U.S.C. 102(b) as being anticipated by Bott *et al.* (US Patent number 5,753,248).

Claim 25: Bott *et al.* teaches an emulsifiable concentrate comprised of an organic solvent (oil phase), a surfactant, and an amphipathic copolymer consisting of hydrophobic and hydrophilic segments (column 4 lines 25-43 and claim 1). Bott also teaches the concentrate with 30-35% amphiphilic compounds, of which the copolymer was about 25% (examples VIII-XIX, column 22 line 60 through column 26 line 17). Bott teaches that the particle sizes of the emulsion are less than 5000 angstroms (0.5 μm , column 5 lines 18-35 and claim 1). As to the final limitation of the claim, identical compositions will have the same properties inherently, in this case, the relationship between particle size with and without copolymer would be the same in the instant claimed invention and the prior art invention.

Claim 26: Bott *et al.* teaches butyl acrylate (an ester of a linear mono-carboxylic acid comprising one ethylenic unsaturation and the elected species) as a hydrophobic monomer of the copolymer (column 10, lines 1-26).

Claims 27 & 28: Bott *et al.* is silent as to the elected species, acrylic acid, of hydrophilic monomers of the copolymer. However, Bott *et al.* does teach vinyl-sulfonic acid as a hydrophilic segment of the copolymer, which reads on the sulfonic functional group-containing monomers in claim 27 and the sulfonic homolog of vinyl-carboxylic acids in claim 28 (column 10 line 66 through column 11 line 25).

Claims 33 & 34: Bott *et al.* teaches the copolymer molecular weight preferably less than 50,000 and more than about 3,000 (column 4 line 64 through column 5 line 2).

Claim 36: Bott *et al.* teaches a graft copolymer structure (abstract, title, column 4 line 25-44). The instant specification asserts that graft and comb are synonymous (page 24, line 19-39).

Claims 37 & 38: Bott *et al.* teaches ethoxylated fatty alcohols as non-ionic surfactants (column 12 lines 15-24).

Claim 41: Bott *et al.* teaches that formulation additives such as odor-masking agents can be added to the emulsifiable concentrate (claim 4 and column 22 lines 50-59). Benzyl alcohol is one such odor-masking agent and is an aromatic primary alcohol that could function as a co-surfactant.

Claims 43 & 44: Bott *et al.* teaches adding neutralents to the emulsifiable concentrate, including an example with an amine, namely dibutyl amine (column 22 lines 50-59 and column 26 example XIX).

Claim 46: Bott *et al.* teaches the emulsifiable concentrate having water content less than 10% w/w (column 20 lines 64-5).

Claim 47: Bott *et al.* teaches an emulsion containing between .24% and 5% emulsifiable concentrate (column 24 example XIII table III through column 26 example XIX).

9. Claims 25-28, 31, 32, 34, 35, 37, 38, & 45-47 are rejected under 35 U.S.C.102(b) as being anticipated by Chamberlain *et al.* (US Patent number 6,051,562).

Claim 25: Chamberlain *et al.* teaches an emulsion with an oil phase containing a copolymer made of hydrophobic and hydrophilic monomers (abstract). Chamberlain *et al.* further teaches that the oil phase may contain a surfactant (column 11, lines 4-13). Chamberlain *et al.* teaches that the active ingredient and its solvent can be present in concentrations of 70-75% in the oil phase, meaning the amphiphilic compounds are 25-30% of the oil phase (column 11 lines 47-65). Chamberlain *et al.* teaches that the copolymer is generally between 1.5 and 8% by weight of the oil phase (column 9 line 66 through column 10 line 6), meaning it would generally be between 1 and 25% of the amphiphilic compounds. Chamberlain *et al.* teaches that the preferred composition has particle size between 0.5 and 3 μm (column 11 lines 36-46). As to the final limitation of the claim, identical compositions will have the same properties inherently, in this case, the relationship between particle size with and without copolymer would be the same in the instant claimed invention and the prior art invention.

Claim 26: Chamberlain *et al.* teaches alkyl acrylate (of which the elected species, butyl acrylate is a member) as a hydrophobic monomer of the copolymer (column 8 lines 50-59).

Claims 27 & 28: Chamberlain *et al.* teaches ethylenically unsaturated carboxylic acid (of which the elected species, acrylic acid is a member) as a hydrophilic monomer of the copolymer (column 8 lines 50-59).

Claims 31 & 32: Chamberlain *et al.* teaches that the arrangement of monomers may be random, thereby resulting in hydrophobic units in hydrophilic segments and vice versa (column 8 lines 1-10).

Claim 34: Chamberlain *et al.* teaches the copolymer molecular weight is more than about 10,000 (column 9 line 38-41).

Claim 35: Chamberlain *et al.* teaches a block structure is possible for the copolymer (column 5 lines 47-65).

Claims 37 & 38: Chamberlain *et al.* teaches that the oil phase may contain a surfactant/emulsifier (column 11, lines 4-13) and lists ethoxylated fatty alcohols (the elected species) among the conventional surfactants/emulsions (column 2 lines 28-34).

Claim 45: Chamberlain *et al.* teaches that the active ingredient and its solvent can be present in concentrations of 70-75% in the oil phase, meaning the amphiphilic compounds are 25-30% of the oil phase (column 11 lines 47-65).

Claim 46: Chamberlain *et al.* teaches the oil phase is free of water (column 10 lines 32-50).

Claim 47: Chamberlain *et al.* teaches the oil phase is 30% of the total emulsion (column 11 lines 24-35).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 4161

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 25, 40, & 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bott *et al.* (US Patent number 5,753,248) in view of Friedman *et al.* (US Patent number 5,993,846) and Van Den Braak *et al.* (US Patent number 6,251,441).

13. Claims 40 and 42 are dependent from claim 25; therefore, rejection of claim 25 under 35 U.S.C. 103(a) is also appropriate.

As to the ingredient proportions in instant claims 40, Bott *et al.* teaches a ratio of copolymer to surfactant of about 33%. This differs from the instant claim in which the ratio is between 0.5% and 10%. A ratio for the copolymer to surfactant of between 5 and 10% is known in the emulsion art (Friedman *et al.*, US Patent number 5,993,846, table 4 columns 15-18); therefore, examiner asserts that this difference in proportion is non-critical and, therefore, would be *prima facie* obvious, absent evidence to the contrary.

As to the ingredient proportions in instant claims 42, Bott *et al.* teaches adding a copolymer (see 102 rejection of instant claim 41 *supra*) but is silent as to a ratio of surfactant to co-surfactant. This differs from the instant claim in which the ratio is between 0 (not included) and 50%. A ratio for the cosurfactant to surfactant of between 0.5 and 10% is known in the emulsion art (Van Den Braak *et al.*, US Patent number 6,251,441, column 1, lines 41-60); therefore, examiner asserts that this difference in proportion is non-critical and, therefore, would be *prima facie* obvious, absent evidence to the contrary.

Conclusion

No claims allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lea whose telephone number is (571)270-5870. The examiner can normally be reached on Mon-Thu 7:30-5:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Nolan can be reached on 571-272-0847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. R. L./
Examiner, Art Unit 4161

/Patrick J. Nolan/
Supervisory Patent Examiner, Art Unit 4161